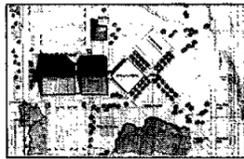




Fiery fare

JSC's Center Operations Directorate cooked up some home-grown fun at last Friday's chili cook-off. Photos on Page 3.



Gilruth plans

The master plan for JSC's Gilruth Recreation Center will be discussed at an upcoming meeting. Story on Page 4.

Space News Roundup

Vol. 28

October 27, 1989

No. 43

Smooth landing caps clean flight

Predicted winds bring *Atlantis*, crew home early

By Kelly Humphries

Commander Don Williams flew *Atlantis* to a smooth space shuttle landing Monday, cutting the STS-34 mission short by two orbits because of anticipated strong winds at Edwards Air Force Base.

The landing on runway 23 at 11:32 a.m. CDT capped a 4 day, 23 hour, 41 minute mission that was virtually without incident once the pre-launch hurdles of a suspect engine controller, a court challenge and an earthquake had been cleared.

The crew of *Atlantis*—Williams, Pilot Mike McCulley and Mission Specialist Ellen Baker, Franklin Chang-Diaz and Shannon Lucid—reported a smooth ride home and was ecstatic about the successful deployment of the Galileo spacecraft.

Bill Lenoir, NASA associate administrator for space flight, said *Atlantis* appeared healthy following landing.

"The vehicle looks amazingly clean," he said at Edwards. "With a quick inspection, we did not see any significant tile damage; a little nick here and a nick there."

The initial tile inspection indicated that the vehicle sustained minimal damage with no tiles missing. About 25 dings were reported on the orbiter's lower surface. Tiles on the upper surface were reported in good shape. The reinforced carbon-carbon chin panel also was reported in good shape and will not have to be removed prior to *Atlantis*' next flight in February.

Williams took the stick at Mach .95 and flew the entire subsonic landing profile manually. Total roll-out distance was slightly more than 9,500 feet. Public Affairs commentary incorrectly stated that Williams had given McCulley control of the spacecraft midway through the landing.

Lenoir said the most significant aspect of the mission was the launch of Galileo, which if successful will be the first probe to stop and take a close look at one of the outer planets. By today, Galileo will be 1,889,347.506 miles from Earth. Please see MISSION, Page 4

upper surface were reported in good shape. The reinforced carbon-carbon chin panel also was reported in good shape and will not have to be removed prior to *Atlantis*' next flight in February.



NASA Photo
Galileo and its inertial upper stage (IUS) detach from the payload bay of *Atlantis*.



JSC Photo by Mark Sowa

Mission Specialist Ellen Baker gets a kiss from her daughter, Karen Sarah, during Monday night's STS-34 welcome home ceremonies at Ellington Field. Next to her are Pilot Mike McCulley and his daughter, Sarah.

Crew spreads credit for success

The crew of STS-34 came home to a warm welcome at Ellington Field on Monday evening, but Commander Don Williams made it plain that the crew did not deserve all the credit for a successful mission. "It was a team effort from the beginning to the end," Williams told a crowd of about 300 family members, friends and co-workers. "Thanks for being a part of the team. Teams win championships and that's what we are."

Williams also urged JSC workers to spread their enthusiasm for the space program. "You people here are what make this program. It's not nuts and bolts and resistors and software and rivets and that kind of stuff. It's people," he said. "You've got to keep that in mind—every single one

of you. It's very, very important to this program. Walk away from here with your heads up and tell people how important this program is to America."

JSC Director Aaron Cohen promised the crowd that eventually people will follow the unmanned probes exploring our Solar System.

"Through you, Don, and the STS-34 crew, we have continued to show that the manned program supports the unmanned program—and they are one," he said. "That's a very key point, because we are going to explore space. I can tell you from personal experience that we are going to explore space both with unmanned probes such as Galileo, and we're also going to explore space with humans."

Please see CREW, Page 4

Discovery rolls to launch pad, countdown test

By Kyle Herring

As *Atlantis* returned from space to end the STS-34 mission, workers at the Kennedy Space Center in Florida made final preparations for *Discovery*'s move from the Vehicle Assembly Building (VAB) to launch complex 39-B for next month's STS-33 mission, a dedicated Department of Defense flight.

The seven-hour trip atop the mobile launch platform was scuttled by poor weather Wednesday and Thursday, but was expected to take place today.

Once at the pad, *Discovery* and its solid rocket booster/external tank stack will undergo interface verification tests with the launch pad. Other work remaining before launch in mid-November includes the helium signature leak tests performed to verify the integrity of all components and final heat shield installation around the liquid-fueled main engines.

The crew for STS-33 is Commander Fred Gregory, Pilot John Blaha and Mission Specialists Sonny Carter, Story Musgrave and Kathy Thornton.

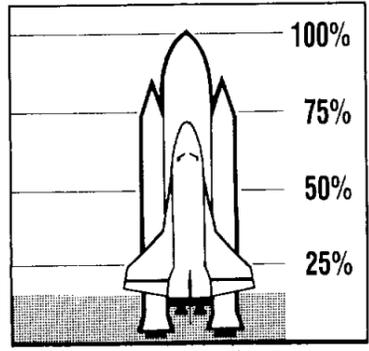
Gregory, who will be the first black to command a shuttle mission, previously flew as pilot of STS 51-B. Blaha flew earlier this year as pilot aboard *Discovery* on the STS-29 mission, and replaces S. David Griggs who was killed in a plane crash in June. Carter and Thornton will be making their first

space flights. Musgrave will be making his third flight having been a mission specialist on STS-6 and STS 51-F.

There is no change in the crew's planned trip to the launch site for the traditional Terminal Countdown Demonstration Test (TCDT). They will leave Ellington Field early tomorrow for the trip to KSC. The TCDT will begin at 7 a.m. CDT Sunday and conclude on Monday.

In the Orbiter Processing Facility (OPF), processing is going smoothly on *Columbia* for its move Nov. 23 to the VAB. Water contamination to the orbiter when the fire suppression system in the OPF was accidentally activated was determined to be minimal and no impact to the flow for *Columbia*'s next mission is expected. Its next flight is scheduled for December to deploy a Navy communications satellite and to retrieve the Long Duration Exposure Facility (LDEF).

Other activity this week at KSC included power up of the Hubble Space Telescope at the Vertical Processing Facility. Hubble will be powered up for the first time since its arrival Oct. 4. This begins a series of functional tests that will continue for several months. The long-awaited launch of Hubble is scheduled for *Discovery*'s turnaround flight next March.



Who you gonna call?

Ghostbusters jalopy scares up interest

By Linda Copley

Edith Glen is proudly showing off her "spired" form of transportation to work at JSC these days—and it's a vehicle especially fitting for Halloween.

The ECTO 1, a 1968 white Cadillac hearse, is outfitted as an exact replica of the vehicle featured in Columbia Pictures' "Ghostbusters II." Glen, an RSOC word processor in JSC's Crew Station area, won it in a drawing sponsored by KRBE Radio.

"I had entered the drawing six times," Glen said, "and then my son and I saw it in the 20th Lunar Landing Anniversary Parade held at the center in July. We

decided to enter one more time, which turned out to be the charm."

"I heard my name on the radio, and picked up the car the next day," Glen said. "Since it doesn't fit into regular parking spots, Security lets me park in the bus or camper lanes—and the visitors who walk by seem to love it."

After hours, Glen and Charlie, her 4-year-old, took the car out only on short junkets to impress his friends until she was paged in the grocery store one day.

"A customer who saw the car begged me to put in an appearance. Please see GHOST, Page 4



JSC Photo by Sheri Dunnette

Edith Glen takes a ride in ECTO 1, her exact replica of the modified hearse used in the filming of "Ghostbusters II."

Ticket Window

The following discount tickets are available for purchase in the Bldg. 11 Exchange Gift Store from 10 a.m. to 2 p.m. weekdays.

- General Cinema (valid for one year): \$3.50 each.
- AMC Theater (valid until May 1990): \$3 each.
- Sea World (San Antonio, year long): adults, \$17.25; children \$14.75.
- Texas Renaissance Festival (open weekends through Nov. 12): adults, \$8.95; children \$4.95.
- Halloween Dance (Oct. 28, 7 p.m., Gilruth Recreation Center): \$11/person.
- Children's Halloween Party (Oct. 30, 6-9 p.m., Gilruth Recreation Center): children 2-13 \$4, adults \$1.
- Snoopy's World of Magic (Nov. 4, 11 a.m., Summit): \$7.50.
- "Step on a Crack" (Nov. 11, 2:30 p.m., UH-Clear Lake Bayou Theatre): \$3.50.
- 20th Anniversary of the First Lunar Landing Speakers Program, and The Moon As Seen By Apollo Astronauts videos are available in the Bldg. 11 Exchange Store.

Gilruth Center News

Sign up policy—All classes and athletic activities are first come, first served. To enroll, you must sign up in person at the Gilruth Recreation Center. Everyone will be required to show a badge or EAA membership card. Payment must be made in full at the time of registration. Classes tend to fill up four weeks in advance.

EAA badges—Dependents and spouses may apply for a photo I.D. 6:30-9:30 p.m. Monday-Friday.

Defensive driving—Course is offered from 8 a.m.-5 p.m., Nov. 18 and Dec. 16; cost is \$15.

Weight safety—Required for use of the Rec Center weight room. Classes will be 8-9:30 p.m. Nov. 7 and Nov. 29; cost is \$4.

Aerobics and exercise—Both classes are ongoing; cost is \$24.

Intercenter run—The 10-kilometer and 2-mile races for the annual Fall Intercenter Run will be held throughout October. Runners may submit their times at the Rec Center.

Country and western dance—Lessons begin Nov. 6 and held every Monday for six weeks; cost is \$20 per couple.

Beginning tennis lessons—Lessons begin Nov. 6 and are held each Monday for six weeks, 5:15-6:45 p.m.; cost is \$32. Sign-ups begin immediately.

The October men's open "C" softball tournament has been cancelled.

Swap Shop ads are accepted from current and retired NASA civil service employees and on-site contractor employees. Each ad must be submitted on a separate full-sized, revised JSC Form 1452. Deadline is 5 p.m. every Friday, two weeks before the desired date of publication. Send ads to Roundup Swap Shop, Code AP3, or deliver them to the deposit box outside Rm. 147 in Bldg. 2.

Property

Sale: Seabrook, 3-2-2, appr. 1880 sq.ft., brick, never flooded, formal, lg. den w/FPL, recently remodeled, new A/C, heater, carpet, roof, etc., redwood deck w/spa, \$69.9K, must qualify. Richard x30271 or 474-9334.

Sale: Seabrook, 3.29 acres w/small 2-1 house. \$95K. 532-4784.

Sale: Heritage Park, 3-2-2, new paint, ext. spa, lg. deck, FPL, carpet, 10.5% assum., near pool, tennis courts, and elem. school, \$68.5K. 996-0289.

Sale: Friendswood, San Joaquin, 3-2-2, approx. 2100 sq. ft., less than 4 yrs old, lg. corner lot, extras, assume 10.5% FHA no approvals with 15K equity, or buy for \$106K. Rich, x38519 or 996-7630.

Sale: 1 wooded acre in Polk Co, 4 mi. south of Livingston off Hwy. 146, Mobile homes OK, \$4800. Pat x30021 or 479-7947.

Sale: Seabrook lots on Toddville, lg. 100'x150', 50' from Bay, owner finance. 474-5558.

Lease: Webster/Ellington, 2 BR apt., extras, \$350/mo. Dave, x38156, or Eric, x38420, or Herb, x38161.

Sale: Taylor Lake Estates, 90'x135' lot, \$35.5K. Don x38039 or 333-3313.

Sale: Crystal Beach cabin, 2-1, A/C, close to beach, \$32K. (409) 823-2582 or (409) 755-1638.

Rent: Crystal Beach cabin, sleeps 8, weekend \$150. Joel, 333-5310.

Rent: Lake Livingston waterfront house, 3-2, CA/H, furnished, covered decks, pier, fish, swim, ski, weekend or week rates. 482-1582.

Lease: Clear Lake City/Middlebrook, 4-2-2, formal, family room, breakfast area, util. room. 488-8619.

Lease: Baywind I condo, 1-1 eff., FPL, CF, encl. patio, lots of windows, \$250/mo. plus \$250 dep. Anne x36923 or 488-8784.

Lease: Baywind condo, 1BR, 1-yr. lease, \$275/mo., avail. Nov. 5. 280-9479.

Trade houses: Custom canyon view, 4-3, off 360 west of Austin, prefer 5 yr. old, open plan within 20 min. of JSC. 471-8795 or 333-6083.

Cars & Trucks

'77 Mazda GLC, rebuilt '82 engine, 5-spd., new paint, AM/FM/cass. w/equalizer, \$850. Mara, x38608 or (409) 737-4266.

'81 T-bird, blue, good cond., 85K plus mi., \$2300. Frank, 892-6983 or 486-5207.

'74 MGB-GT, 1800cc, dual SU carbs, elec. OD, AC, \$2500. Lamar, x37064 or 538-4615.

'84 Chevy Celebrity, 4-dr., auto., A/C, PW, DL, cruise, tilt wheel, delux cloth uphols., reclin. bucket seats, AM/FM/cass., metallic brown, \$4000. Edward, x36250 or 481-4889.

'82 Ford Fairmont, 4-dr., A/C, good cond., 71K mi., service manuals, \$1550 OBO; '86 Plymouth Reliant, 4-dr., loaded, 41K mi., lt. blue, ex. cond, \$3450 OBO. 482-6187.

'81 Mazda GLC, 3-dr., 4-spd., A/C, AM/FM/cass., power equalizer, dark grey, good cond., \$1400. Hiep, x31454 or 484-8094.

'78 Pontiac Gran Prix, 86K mi. runs well, some rust, \$700. 486-0732.

'81 Chevy Malibu Classic, A/C, good tires, new tags, good cond., \$600 OBO. Jerry, 534-2072.

38 ft. travel trailer w/tp out, \$1500. 474-5558.

'75 Ford PU, new tires, seat cover, mufflers, stereo, drive shaft, 302 auto., heat, PS, PB, some rust, \$750 OBO. 333-6558 or 339-1337.

'72 Fiat Spyder convert, blue, ex. cond., stereo, rebuilt engine, new brakes. 488-2941.

'82 Chevy Citation, PW, tilt, A/C, \$1950. Bruce, x33571.

'80 Corvette coupe, 65K mi., ex. cond., all pwr., shop manual, \$8400 OBO. x34600 or (409) 345-4597.

'81 Lincoln Town Car, ex. cond, \$3750. Pat, (713) 393-5436, or Dean, (409) 925-4047.

'84 Ford Anaheim van, loaded, garaged, 1 owner, \$12.5K, x83265 or 482-1633.

'85 Jaguar-XJS, ex. cond, 45K mi., \$21,750. Earl Rubenstein, x32972 or 326-2354.

'79 Chevy Malibu Classic, good cond., \$1200. Earl Rubenstein, x34807 or 326-2354.

Boats & Planes

17' Boston Whaler boat and trlr. w/75 Johnson Motor, power tilt and trim, \$5200. Pat (713) 393-5436, or Dean, (409) 925-4047.

14' Glassmagic skiboat, 80hp Mercury, galv. trlr., skis, fresh water use, ex. cond., 38 mph, \$1695. x35180 or 326-3706.

'75 21' Bayliner, Volvo 135 in/out, needs work, \$27K nego. Eddie or Susan, 534-3649.

27' Santana sailboat, 5 sails, VHF radio and depth finder, \$5500. x36875 or 482-9450.

13' AMF Zuma sailboat w/trlr., \$850. Ted Guillory, 4801-2367.

'87 18' Celebrity Bowrider 183VBR, 165hp I/O, SS prop, full teak swim platform, tilt/trim, cover, bimini, Sportsman trlr., mint cond. 333-1640.

Cycles

Redline MXII bicycle, hi-strength racing frame, 20" competition II racing tires, handle bar pads, rear brake, kickstand, ex. cond., \$300. Charles, x31153 or 481-2940.

'84 Honda V65 Magna, black, new battery, new Pirelli tires, 1 owner, garaged, ex. cond., \$2800 OBO. x31653 or 326-4030.

'77 Yamaha Enduro 125, street & dirt, new tune-up, new battery, w/helmet, ex. cond., \$450. x31802.

'78 Kawasaki KZ650, vetter fairing, extras, ex. cond., 5560 mi., \$750 OBO. x30577 or 554-2375.

Dingo 8hp go-cart, good cond., \$375 OBO. x30577 or 554-2375.

Audio Visual & Computer

Tandy 1000 EX computer, 640K RAM, 2 disk drives, color monitor, printer, First Choice software [word processing, spreadsheet, graphics]. x30055.

IBM XT (not clone) 30 meg HD, color w/Taxan monitor, AST 6-pak, clock, calendar, 2 serial ports, 2 parallel ports, printer, 640K, \$1450. x30092 or 481-3637.

AT&T Display Enhancement Board (DEB), 640x400, 16 color, works with regular AT&T color monitor, \$100 OBO. x30852 or 996-0981.

Osborne Portable, CP/M w/2 5 1/4 floppy drives, modem, ext. monitor, and 80 col. upgrade, software included, \$295. 326-1278.

Two sealed copies of MacDraft 1.1b, \$75 ea. or \$130 for both; will trade both copies for MacRecorder or SuperCard. Mark, 894-60404 or 282-4547.

Casio fx-8000G graphics computer, 1446 prog steps, 1917 file steps, 8 line x 16 char display, interface for storage and printer, \$75. Tom Clark, x39842.

Household

Solid oak 42" round table and 4 ladderback chairs, ex. cond., \$485. 482-0554.

2 pc sectional w/recliners on ea. end, steel

Today

Cafeteria menu—Special: tuna and salmon croquette. Entrees: pork chop with yam rosette, Creole baked cod. Soup: seafood gumbo. Vegetables: Brussels sprouts, green beans, buttered corn, whipped potatoes.

Monday

Cafeteria menu—Special: Italian cutlet. Entrees: braised beef ribs, chicken a la King, enchiladas with chili. Soup: cream of broccoli. Vegetables: navy beans, Brussels sprouts, whipped potatoes.

Tuesday

Nominations due—The deadline for the next quarterly JSC Quality Partnership Award has been extended to Oct. 31, 1989. The award recognizes civil servants and contractors not in the quality field for contributions toward higher standards of quality at JSC. Nominations should be sent to H.T. Briggs, Code ND.

Quality, productivity conference—The sixth annual NASA/Contractors Conference on Quality and Productivity will be Oct. 31-Nov. 1 at the Von Braun Civic Center in Huntsville, Ala. This year's theme is "Partnership for Continuous Improvement." NASA Administrator Richard Truly is to announce the 1988/89 NASA Excellence Award for Quality and Productivity.

Cafeteria menu—Special: stuffed cabbage. Entrees: turkey and dressing,

round steak with hash browns. Soup: beef and barley. Vegetables: corn cobbette, okra and tomatoes, French beans.

Wednesday

Cafeteria menu—Special: pepper steak. Entrees: catfish with hush puppies, roast pork with dressing. Soup: seafood gumbo. Vegetables: broccoli, macaroni and cheese, stewed tomatoes.

Thursday

Cafeteria menu—Special: chicken fried steak. Entrees: beef tacos, barbecue ham steak, Hungarian goulash. Soup: turkey and vegetable. Vegetables: spinach, pinto beans, beets.

Friday

Cafeteria menu—Special: tuna and noodle casserole. Entrees: liver and onions, deviled crabs, roast beef with dressing. Soup: seafood gumbo. Vegetables: whipped potatoes, peas, cauliflower.

Nov. 6

Supercomputing symposium—"Supercomputing: Parallel and Numerically Intensive Computing" will be the focus of the next Research Institute for Computing and Information Systems (RICIS) series Nov. 6-7 at the South Shore Harbour Hotel and Convention Center. Co-sponsored by RICIS and JSC. Sessions will consider supercomputer design; major issues of supercomputing; innovative computing and experimental architectures; image processing, graphics and simulation;

and computational fluid dynamics. Cost is \$195 for university and government workers or \$275 for others. NASA employees should contact Glen Van Zandt, x33069.

Nov. 7

Photovoltaic conference—NASA's Lewis Research Center will host the 10th Space Photovoltaic Research and Technology Conference to assess the progress the program has made to increase the end-of-life performance of solar cells and arrays. The meeting's agenda includes discussions of cell research and technology, space environmental effects, and array technology by representatives from industry, academia and government. For information, contact Clifford Swartz (216) 433-2232.

Nov. 9

Education Conference—The Space Center Houston Chapter of The National Contract Management Association (NCMA) will sponsor a one day Education Conference on Ethics and Integrity in Contracting on Nov. 9. Registration and a continental breakfast will be at 7:30 a.m. at the South Shore Harbour resort in League City. Contractor and government experts, including U.S. Rep. Jack Brooks. The registration fee is \$100 for NCMA members and \$125 for non-members. For registration, NASA personnel should call Sue Garman at x34142, contractors call Sandra Allen at 280-2361. Contact Joanne E. Kirbie at 333-6319 for general information.

Swap Shop

blue, 1 yr. old, \$800; matching gold & white chairs, need to be cleaned, \$60 for both. Danna, 996-9943.

Sofa/sleeper, queen-sz, avocado & gold velvet, ex. cond., \$300. 482-1535.

Marble top vanity & sink, 23 1/2 x 67 1/2, \$75; glass tub enclosure, \$30; car top carrier, \$25. 333-2366.

Office credenza, like new, black metal, 60"x20"x29", 4 drawers (2 file), storage shelf behind sliding doors, wood-grained top, \$90. Linda x34044 or 280-0909.

Long sofa, ex. cond, \$150; Lazy Boy rock/recliner, ex. cond., \$85; Lazy Boy tall boy, \$70. x33187 or 488-5162.

Beer refrigerator, 10 lb CO₂ tank, 16 gal. keg (empty), tap equip.; beermaking supplies & literature; will instruct on first batch. x30055.

Striped sofa, beige, \$80. 486-6831.

Wards Signature 18 cu. ft. refrig./freezer, new timer, white, good cond, \$99 OBO. 326-1404.

Antique brass and glass fireplace screen, fits 2'H x 3'L opening, ex. cond., \$50. Judy, x38455.

Fireplace w/bricks and mantle, chimney, log holders, cover for opening, \$125 OBO. 333-6558 or 339-1337.

Baby bed, white, 2 yr. old, \$70; walker, \$15; swing, \$10, all in good cond. Don, x39036 or Patti, 482-3820.

Early American couch, brown tone, \$75. Ed, x36250.

Contemporary/traditional style sectional sofa, Wedgewood blue/peach/bone tweed, was \$1200, now \$750 OBO. Cindy, x38801.

Octagonal hot tub cover, 7 ft., almost new, \$200; lg cap. 750 Watt microwave oven, \$200; 5-piece Wards dinette set, \$35. Wayne, x32435 or 334-3858.

G.E. built-in double oven, ex. cond.; 1 new Levolor miniblind, 82"x36", alabaster. 488-2822.

Small dining table w/2 chairs, brown metal & light wood top, \$50. 486-0830.

Solid oak water bed w/6 drawers under and mirrored headboard, matching highboy and nightstand, \$850; Scandinavian style entertainment center, \$250. 282-3985 or 488-0151.

Large den chair w/ottoman, sand color, ex. cond., \$25; exercise trampoline, \$25. x36369 or 326-2731.

Side by side refrig./freezer, icemaker, 19.1 cu. ft., harvest gold, \$300. Tim, 488-8806.

China cabinet, \$300; formal dining table w/4 chairs, \$450.; sofa, \$30, Sofa, \$70; coffee table, \$40; bunk bed, \$200; desk, \$50; convection microwave, \$450. 488-8619.

Large sofa, 8'2" long, brown, good cond., \$75. 488-6521.

King-sz Mediterranean style bed, BO, or trade for sleep sofa. Claire, x34828 or 337-2415.

King-sz waterbed, w/drawers, semi-motionless, pads & heater, new, \$600. Laura, x31312.

Three pc. living room set, good cond., \$200; RCA 25" color console TV (no remote), dark wood, good cond, \$150 OBO. x31653 or 326-4030.

Chromecraft dinette set, modern, executive walnut table, 4 diamond tufted blk vinyl chairs, \$220. Boyd, 488-8806.

Tweed couch & loveseat, wood base, 7 yr. old, \$250. 488-2631.

Pets & Livestock

Cute 7 week old puppies, part setter and spaniel, black, black/white, tan/white, free OBO. Jean, 559-2325.

Umbrella cockatoo, very tame, starting to talk, cage, \$600. Pat, x32661 or 485-5636.

Free spayed cat and 3 tabby kittens, all raised with large dog. Karin, x33381 or 480-3761.

Cocker Spaniel puppies, AKC registered, champion sire, buff, white/buff, males, \$200; females, \$300. Robyn, 283-6505 or 488-4190.

Miniature Schnauzer puppies, AKC, no shedding, shots, \$275. Pat, x35011 or 488-3829.

Male Siberian Husky, 4 months old, black & white w/blue eyes, AKC, all shots, pet taxi, house broken, very gentle. Julie, x30424.

Doberman puppies (born 8/20/89), black & reds, tails & duclaws removed, have second set of shots, wormed, sire & dame on premises, \$100 ea. Merrell, x37570 or 559-2017.

Free kittens, 5 mo. old, one calico, one orange tiger male, shots, wormed, dipped; Siamese male, 5 mo. old, \$20; 2 rabbits w/cage, \$10. x36461 or 534-3893.

Wanted

Need someone to carpool from Lake Jackson area. Turner, x30918 or (409) 297-7038.

Want: seasoned firewood, 1 cord or half cord, delivered in Nassau Bay. 333-3402.

Want: Cassens and Plath or Plath marine sextant, good cond., w/case. Bill Fischer, x30930 or 474-3679.

Want: Volvo 15 in. turbo wheel, 5 spokes, in good cond., Vincent, x30874 or 333-1316.

Want to trade car for pickup truck, will trade '82 Ford Futura, 4-dr., auto, A/C for pref. small truck. Irv, x36461 or 534-3893.

Want: Starwars spaceships, toys, figures & books. Ron, 482-1385.

Want to join or form carpool from the Montrose/Rice area, hours are 7:30 to 4:30. Mary, x34802.

Want: Yamaha JOG scooter, '86 preferred, also scooter tires, 2.75-10-4PR. Fred, 488-8811 or 944-0493.

Want child carrier for bicycle and child safety helmet. x30713 or 996-9551.

Want: reasonably priced treadmill, sail for 12' sailboat, carpet steam cleaner, and pressure washer. Don, x38039 or 333-3313.

Want: riders for carpool, Bissonette/Sugar Land to NASA. Mari, x39449.

Seeking members to form band of Pop/Rock origin. Eddie or Susan, x32858 or 534-3649.

Musical Instruments

Guitar w/hardcase, candy apple red Kramer 1000, w/tremolo bar, Bartolini pickup, strap, perfect cond., \$400. Charles, x31153 or 481-2940.

Bundy II tenor saxophone, ex. cond., \$750 OBO. x31444 or 225-1479.

Miscellaneous

Round solitaire diamond ring, 1.08 kt., G color, VSI quality, 14 kt. gold, was \$5000, now \$3700. Cynthia, 554-3857 or 282-6704.

59" Hurricane surfboard, 4 colors, trac-top, triffin, like new, \$275 OBO. Richard x30271 or 474-9334.

VHS movies, \$10 ea.: *What's Up Doc?* (Streisand), *Comancheros* (John Wayne), *Change of Habit* (Elvis) *War of the Worlds* (Gene Barry), *Sound of Music* (2 tapes), \$15. Linda x34044 or 280-0909.

ALTEC Lansing model 14, high efficiency rated studio monitors, high fidelity circuit protected loudspeaker system, 5 to 200+ Watts RMS, amplified dependent, \$300 ea. 997-1824.

Proton 440 stereo AM/FM tuner component, digital readout, 12 station memory, search, Schotz FM tuner, between channel noise elimination, was \$295, now \$195. Sy, x30504 or 776-9754.



First COD Chili Cook-off

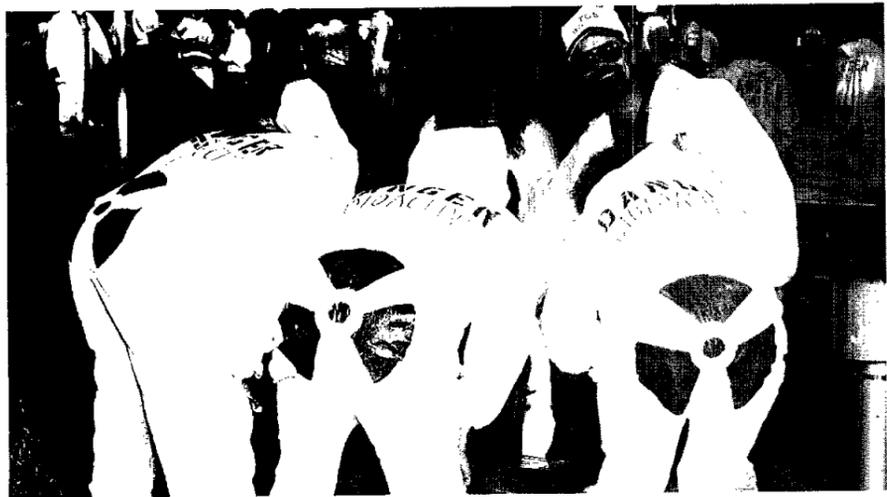
'Only a warm up'

Stiff competition between the 19 teams participating in the Center Operations Directorate (COD) first annual chili cook-off raised Friday the thirteenth afternoon activities to a fevered pitch. Almost 1,400 COD civil service and contract employees and their families enjoyed the Indian summer weather and the fiery fare outside the Gilruth Recreation Center.

"Festivities closed with cries of 'wait until next year,'" according to Avis Nettles, secretary to COD Director Ken Gilbreath.

Photos, clockwise, from the top: 1) Official judges P.J. Weitz, Don Puddy, Jack Lister and Harv Hartman, armed with towels for the brow and ice water, consider the entries; 2) Hot Lips team member John Allen Jr., Technical Services, consults with Plant Engineering's Alan Miyamoto; 3) the television office's Ric Slater enjoys the company

of El Diablos team "hostesses" Terry Hardy and Debbie Streater, both Pan Am employees; 4) Kelsy-Seabold's Warren Sproul and Dawn Fadner take a rest from Wasting Away team duties; 5) Tech Services Chief J.D. Williams and wife Janna enjoy Screaming Chili Mashers team activities; 6) Dennis Klekar accepts the People's Choice Award for the Best Chili for the El Diablos team, although rumors imply "they stuffed the ballot boxes." El Diablos also won the the People's Choice Award for the Worst Chili; 7) Chili de Humo Rojo JA team members Rich Hall, Earl Rubenstein, COD Director Ken Gilbreath, Avis Nettles, Marge Davis, Grady McCright and Joe Pouzar defiantly await the verdict; 8) Wasting Away team members in conference; 9) Texas Hot team members Dorothy Rasco, Bev Cox, and Hanan Dabis exert undue influence on the judge's decision.



Photos by Mark Sowa

Meteorologists earn plaque honors

The Space Flight Meteorology Group and lead forecaster Steve Sokol received the honor of hanging the mission emblem following STS-34.

Sokol and the rest of the meteorology group were recognized by Lead Flight Director Milt Heflin for their clear, concise and well coordinated explanation of weather affecting the launch and landing of *Atlantis*.

Heflin said the group played an important part in making last Wednesday's launch possible and in the decision to bring the shuttle home three hours early to avoid strong winds.

The presentation and hanging of the plaque took place in the Mission Control Center shortly after landing.

MFA honorees visit Cape

Manned Flight Awareness (MFA) launch honorees from JSC arrived

on time to witness the launch of STS-34 at Kennedy Space Center (KSC), only to have the mission slip to the following week.

The 17 participants were treated, however, as part of the three-day expense-paid trip, to a special tour

JSC

People

of the facilities and a reception. NASA Administrator Richard H. Truly, KSC Director Forest McCartney, Arnold Aldrich, associate administrator for the Office of Aeronautics and Space Technology, and Dr. William Lenoir, associate administrator for the Space Transportation System and Space Station, addressed the group. Certificates commemorating their trip were presented to the group by Astronaut Mark Lee.

The MFA Launch Honoree Award recognizes outstanding achievement in support of NASA's manned space flight efforts since the days of the Mercury program.

Magazine highlights

Earth observations

JSC Space Shuttle Earth Observations Office scientists Dr. Mike Helfert and Dr. Kamlesh Lulla recently co-edited an issue of the magazine *Geocarto International* totally devoted to observations of the earth by NASA astronauts.

The special issue, published in March, included color photographs and articles on the history of manned spaceflight from an Earth observations perspective as well as current Earth observations from recent Shuttle flights.

Featured articles include: "Monitoring Tropical Environments with



MFA October honorees include (standing, left to right): Rose Wilson, Dennis Doherty, Peggy Halyard, Linda Green, Randy Gish, Micki Authier, Barbara Shock, Martha Hollman, Nelda Howell, Pat Garza, Harold Clayton, Terry Fechner, Howard Law and Maureen Bowen. (Kneeling left to right): Alva Hardy, Robert Spann and Guy Marsella.

Space Shuttle Photography," "Meteorological Applications of Space Shuttle Photography," "Geologic Applications of Space Shuttle Photography," and

"United States Manned Observations of Earth before the Space Shuttle." Several copies of the issue are now on file in the Technical Library.

Drug abuse prevention tapes aired

Texas Gov. Bill Clements has designated Oct. 22-29 as "Red Ribbon" week to focus attention on the mobilization of community resources in the prevention of drug abuse.

In support of the effort at JSC, educational videotapes promoting a drug-free society are now available for employees to check out for home viewing by calling the Employee Assistance Program office at x36130.

The videos, available in half-inch VHS format and suitable for family viewing, will air continuously today on JSC closed-circuit television.

Employees interested in scheduling a program speaker, or obtaining drug education information for their community, civic, or church group should contact Janice Griffin in the Houston office of the Texans' War on Drugs organization, at 622-9890.

Employees invited to attend STS-34 briefing Thursday

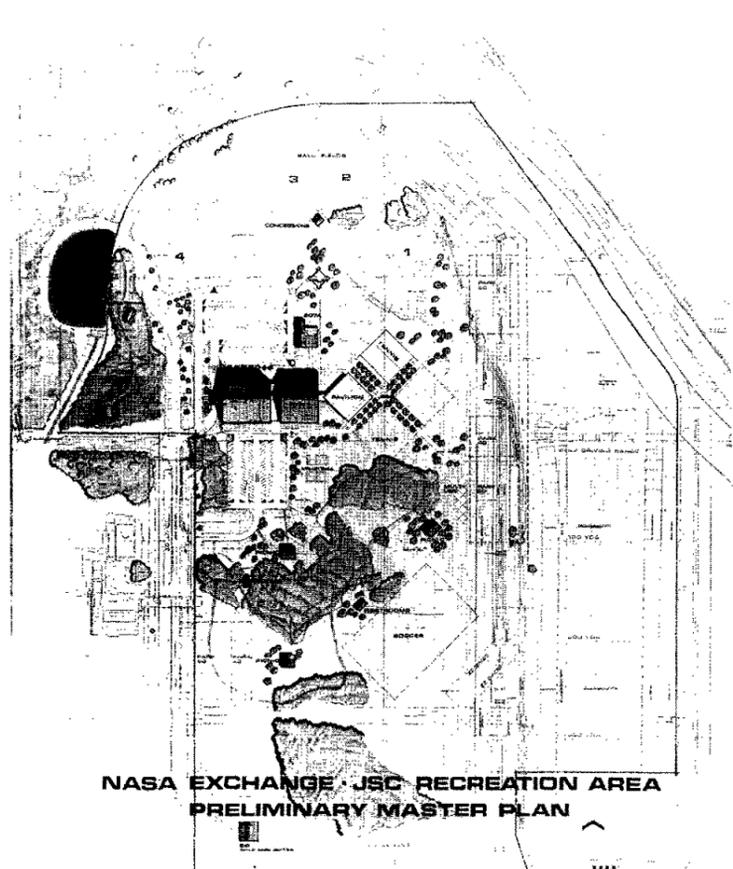
All NASA employees are invited to join the crew members of STS-34 for a review of their recent mission from 2-4 p.m. Thursday in Teague Auditorium.

Supervisors are encouraged to allow as many employees as possible attend the presentation, which also will be carried live on the JSC closed-circuit television system.

Custodial clinic to be humorous

JSC's Special Purpose Maintenance and Services Office is sponsoring a humorous, professional custodial clinic from noon-2 p.m. Wednesday in Teague Auditorium.

The clinic, designed to promote more effective and safe custodial work, will feature Dick McDevitt, national education director for PortionPac Chemical Corp.



The preliminary master plan for JSC's Gilruth Recreation Center includes a gymnasium addition, more picnic sites and a road circling the complex.

Nov. 14 meeting

Gilruth master plan proposes additions, connecting streets

By Linda Copley

The Employee Activities Association (EAA) will present a preliminary master plan of proposed improvements and additions to the Gilruth Recreation Center at a general assembly meeting Nov. 14.

Any specific requests employees may have for future recreational expansions should be submitted to their EAA representative prior to that meeting. Employees who would like to present their ideas in person may attend the meeting at 1:30 p.m. in Room 204 of the Gilruth.

The preliminary master plan was developed to determine proper locations for expansions to the present indoor and outdoor recreational activity areas at the Gilruth. The move is necessary to accommodate the increasing numbers of employees using the facilities.

The plan for the proposed mod-

ifications was presented at the September meeting of the NASA/JSC Exchange Council by Don Holick, Facilities Development Division. Holick's suggested improvements include a multipurpose gymnasium facility on the east side of Bldg. 207; a covered basketball/multi-use pavilion; additional picnic pavilions, restrooms, and drinking fountains; additional soccer, flag football, and volleyball courts; and additional parking.

Also included is a link road connecting the east and west roads at the north end of the site in the area of the baseball fields. Another proposed road at the southern portion of the site should also provide more access to specific areas within the perimeter of the facility.

For further information, contact Teresa Sullivan, x38970, or Glenda Lancon, x30282.

Mission ends with smooth landing three hours early

(Continued from Page 1) miles from Earth traveling 8,797 geocentric miles an hour on its way to a slingshot pass by Venus.

He said the successful mission also bodes well for the rest of this year's planned missions, STS-33 and then STS-32.

"The next two launches look like they're pretty much on schedule," he said. "There's a very good likelihood that the next two missions will be in the air over the two upcoming holidays, Thanksgiving and Christmas."

Dick Spehalski, Galileo Project manager, said the crew did an excellent job of getting the Galileo mission started, and that the interplanetary spacecraft was performing well des-

pite increased solar flare activity. Referring to an ongoing joke between Williams and the project team, he said, "I'd like to report to Don that the Galileo 'critter' is on its way and doing very, very well."

Williams said he is excited about the prospects of the Galileo mission.

"I think we're going to find out here over the next several years as Galileo makes a loop around Venus, a loop around the Earth and another one around the Earth and we see what kind of science data we get out of that spacecraft and what kind of knowledge is gained for mankind in general out of that spacecraft, it's going to be really significant."

Chang-Diaz said the joining of the

manned and unmanned space exploration programs for the second time is an important accomplishment in itself.

"We send all kinds of spacecraft unmanned out there to study the planets and see what they look like. Ultimately what we really are looking for is to be there ourselves. This is a great beginning for the study of Jupiter."

Only two systems on *Atlantis* gave the crew and flight controllers any trouble. But problems with the Flash Evaporator System (FES), a part of the orbiter's cooling system, and the cryogenic oxygen manifold valve on tank two were resolved.

In addition, Chang-Diaz made some

minor adjustments to the Shuttle Solar Backscatter Ultraviolet (SSBUV) experiment, which was designed to help calibrate space-based ozone monitors. And Lucid and Williams used a direct approach to get the student ice crystal experiment working by reloading it and gently shaking it a few times. An hour after reactivation, Lucid reported good crystal formation to the experiment's student investigator, Tracy Peters.

Atlantis' return trip back to Florida is scheduled to begin tomorrow. A refueling stopover is planned at Kelly Air Force Base in San Antonio. There was a remote possibility that the cross-country ferry operation could be completed in one day.

Crew expresses thanks to mission support workers

(Continued from Page 1)

Williams gave high marks to the scientists in the crew, saying they "probably managed to salvage several experiments that would not have been successful without their efforts and without the efforts of the team on the ground."

Shannon Lucid offered her thanks "to everyone who worked so hard to make my job so easy."

Franklin Chang-Diaz commented on witnessing the *Aurora Australis* from space.

"It was beautiful to be up there for five days in space and looking down

at Earth, looking down at the beautiful auroras that form when the particles from the sun hit the atmosphere and make those colorful displays," he said.

Ellen Baker, who was joined on the podium by her year-old daughter, Karen Sarah, gave tribute to the Shuttle Mission Simulator team that trained the crew for the mission. She recalled that when in orbit, she kept saying "feels like we're in the fixed base, but where are the mals?"

And Mike McCulley, with his 3-year-old daughter, Sarah, on his lap, brought everyone back to Earth by noting how priorities change after landing.

Listen!

The Employee Information Service carries all the latest details on space shuttle launches, landings and welcome home ceremonies.

For the most up-to-date information call:

483-6765

Ghostly automobile haunts JSC streets

(Continued from Page 1)

at her nephew's birthday party that weekend," Glen explained. Since then many of her weekends have been filled with birthday party and parade engagements.

Glen doesn't plan on keeping ECTO 1 forever, with its 10 miles to the gallon mileage and limited seating capacity—one bench seat in the front, two small jump seats behind, a glass partition, and a platform to "seat" the type of customer the vehicle was originally designed to accommodate.

"I plan to sell it sometime before tax time," she explains, "but meanwhile, Charlie is planning to have a great time trick-or-treating next Tuesday."

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